

INTERNATIONAL SEARCH REPORT

Inventor's Application No
PCT/JP2004/012771

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C09K11/06 C08F212/32

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C09K C08F H01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 03/018653 A (JAPAN BROADCASTING CORP ; SHOWA DENKO KK (JP)) 6 March 2003 (2003-03-06)	1-7
Y	pages 13,15,42 & EP 1 424 350 A (JAPAN BROADCASTING CORP ; SHOWA DENKO KK (JP)) 2 June 2004 (2004-06-02)	8-11
Y	EP 1 298 736 A (SEMICONDUCTOR ENERGY LAB) 2 April 2003 (2003-04-02) paragraphs '0029!, '0041! - '0043! ----- -/--	8-11

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

21 February 2005

Date of mailing of the international search report

08.03.05

Name and mailing address of the ISA
European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Pollio, M

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Int. Patent Application No
PCT/JP2004/012771

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	TAMADA M ET AL: "Thermal stability and EL efficiency of polymer thin film prepared from TPD-acrylate" POLYMER, ELSEVIER SCIENCE PUBLISHERS B.V, GB, vol. 41, no. 15, July 2000 (2000-07), pages 5661-5667, XP004193877 ISSN: 0032-3861 abstract	1-11
A	DOMERCQ B ET AL: "Photo-crosslinkable polymers as hole transport materials for organic light-emitting diodes" PROCEEDINGS OF THE SPIE, SPIE, BELLINGHAM, VA, US, vol. 4642, 2000, pages 88-96, XP002297916 ISSN: 0277-786X	1-11
A	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 04, 31 August 2000 (2000-08-31) & JP 2000 012882 A (FUJI PHOTO FILM CO LTD), 14 January 2000 (2000-01-14) abstract claim 5	1-11

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In international application No.
PCT/JP2004/012771

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☒ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: '1-11!

A phosphorescent polymer of formula 1 of claim 1 wherein
p=1.
An oLed comprising the polymer.

2. claims: '1-11!

A phosphorescent polymer of formula 1 of claim 1 wherein p=0
An oLed comprising the polymer.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP2004/012771

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 03018653	A	06-03-2003	JP	2003342325 A	03-12-2003
			EP	1424350 A1	02-06-2004
			WO	03018653 A1	06-03-2003
			US	2003091862 A1	15-05-2003
EP 1424350	A	02-06-2004	JP	2003282510 A	03-10-2003
			JP	2003342325 A	03-12-2003
			EP	1424350 A1	02-06-2004
			WO	03018653 A1	06-03-2003
			US	2003091862 A1	15-05-2003
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			EP	1298736 A2	02-04-2003
			JP	2004164853 A	10-06-2004
			US	2003062826 A1	03-04-2003
JP 2000012882	A	14-01-2000	NONE		